

# Glossary: Python Programming Fundamentals

Welcome! This alphabetized glossary contains many of the terms you'll find within this course. This comprehensive glossary also includes additional industry-recognized terms not used in course videos. These terms are important for you to recognize when working in the industry, participating in user groups, and participating in other certificate programs.

| Term                 | Definition   |
|----------------------|--|
| Analogy              | Refers to a concept or comparison outside the scope of the programming language itself, used to explain or relate one concept to another in a more understandable way.   |
| Attributes           | Attributes in Python refer to the characteristics or properties of an object, and they can be accessed using dot notation.   |
| Branching            | Branching in Python is a process of altering the flow of a program based on conditions, typically using if, elif, and else statements.   |
| Comparison operators | Comparison operators in Python are used to compare values and return Boolean results (True or False), including operators like == (equal), != (not equal), < (less than), > (greater than), <= (less than or equal to), and >= (greater than or equal to). |
| Conditions           | Conditions in Python are used to make decisions in code, executing specific blocks of code based on whether a given expression evaluates to True or False.   |
| Enumerate            | In Python, "enumerate" is a built-in function that adds a counter to an iterable, allowing you to loop through both the elements and their corresponding indices.  |
| Exception handling   | Exception handling in Python is a mechanism for gracefully managing and responding to errors or exceptional conditions that may occur during program execution.  |
| Explicitly           | In Python, the term "explicitly" refers to performing an action or specifying something in a clear, unambiguous, and direct manner.  |
| For loops            | For loops in Python are used for iterating over a sequence (such as a list, tuple, or string) or other iterable objects, executing a set of statements for each item in the sequence.  |
| Global variable      | Global variables in Python are variables defined outside of any function or block and can be accessed and modified from any part of the code.  |
| Incremented          | "Incremented" in Python means to increase the value of a variable by a specified amount, typically done using the += operator or by adding a fixed value.  |
| Indent               | In Python, "indent" refers to the use of whitespace at the beginning of a line to signify the structure and scope of code blocks, such as loops and functions.   |
| Indices              | In Python, "indices" refer to the position or location of elements in a sequence, like a string, list, or tuple, starting with 0 for the first element.  |
| Iterate              | In Python, "iterate" means to repeatedly perform a set of operations or steps on each item in a collection, such as a list, tuple, or dictionary, typically using loops or iterators.  |

| Term                     | Definition   |
|--------------------------|--|
| Local variables          | Local variables in Python are variables defined within a specific function or block of code and are only accessible within that function or block.   |
| Logic operators          | Logic operators in Python are used to perform logical operations on Boolean values, including operators like and (logical AND), or (logical OR), and not (logical NOT).  |
| Loops                    | Loops in Python are constructs for repeating a block of code, enabling the execution of the same code multiple times.  |
| Parameters               | Parameters in Python are placeholders in a function definition, used to accept and work with values provided to the function when it is called.  |
| Programming Fundamentals | Programming fundamentals in Python involve variables, control structures, functions, data structures, input/output, and error handling for building software.  |
| Range function           | The range function in Python generates a sequence of numbers that can be used for iterating in a loop and is typically used as range (start, stop, step), where it creates numbers from start to stop-1 with the given step increment.   |
| Scope of function        | The "scope of a function" in Python refers to the region of code where a variable defined within that function is accessible or visible.   |
| Sequences                | Sequences in Python are ordered collections of items that can include data types like strings, lists, and tuples, allowing for indexing and iteration.   |
| Syntax                   | In Python, "Syntax" refers to the set of rules that dictate how code must be written and structured to be correctly interpreted by the Python interpreter. It includes correct use of keywords, indentation, operators, and punctuation. |
| While loops              | While loops in Python are used to repeatedly execute a block of code as long as a specified condition is true.   |